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5409 7590 04/23/2007 SCHMEISER, OLSEN & WATTS 22 CENTURY HILL DRIVE SUITE 302 LATHAM, NY 12110			EXAMINER KARLS, SHAY LYNN	
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Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/805,304	Applicant(s) KLASSEN ET AL.	
	Examiner Shay L. Karls	Art Unit 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12, 13, 16, 21-28 and 30-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-13, 16, 21-28, 30-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 12, 16, 28, 31-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer (USPN 6905335) in view of Boland et al. (USPN 6253404) in view of Carr (USPN 5765252) and further in view of Blaustein et al. (USPN 6836917).

Fischer teaches a tooth cleaning kit comprising a universal handle and various sized cleaning tips for attaching to the handle. Fischer's kit however fails to include a cleaning device with cleaning tips as claimed and also fails to include cleaning end portions as claimed. Additionally, Fischer fails to teach a handle with a decreased diameter between the ends.

Boland teaches a tooth cleaning device comprising a universal handle (11) and a plurality of cleaning tips (figures 5-6 and 8-9) (claim 1). The cleaning tips progress in size from smaller to larger (figure 8-9 show the smallest and figures 5-6 show the larger) and at least one of the tip have a surface features includes a groove (figure 5A) (claim 2). One of the cleaning tips has a multi-directional protrusion and brush-like shapes (figure 6A and 6D show the protrusions (on the tip) and the brush-like shapes (64)) (claim 3). The cleaning tips are characterized by a 360 degree radially outward omni-directional cleaning surface shape (the cleaning tips all have cleaning surfaces that extend 360 from the center) (claim 1 and 4). The cleaning tip (figure 8A) has a generally oblong shape when viewed from the top end of the cleaning tip (claim 5). The

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cleaning tips are tapered in shape toward the top end when viewed from the front and or side (figures 5-6) (claim 6 and 12). The cleaning tips can be non-round shapes (figure 8A) (claim 28). The plurality of cleaning tips are secured onto the universal handle and a toothbrush is formed. The toothbrush has bristles having a 360 degree shape, with an outer bristles shape that is at least partially non-round when viewed from the top end of the toothbrush (figure 8A) (claim 31). The plurality of cleaning tips are secured onto the universal handle and a toothbrush is formed. The toothbrush has bristles having a 360 degree shape, with an outer bristles shape that is at least partially tapered when viewed from the front of the toothbrush (figure 8A) (claim 32).

Carr teaches a tooth cleaning device having various shaped cleaning end portions (claim 1). The cleaning end portions progress in size from smaller to larger (figure 1-5 are for an adult while figure 7 is for a child and figure 8 is the largest cleaning device being used on an entire hand) (claim 2). The cleaning end portion in figure 8 has a generally oblong shaped when viewed from the top end of the end portion since the length is longer than the width (claim 5). The end portions have a tapered shape when view from the front (all the figures show that the device tapered from the sides to the top) (claim 6). The cleaning end portions has a non-round shape (figure 8) (claim 28). The cleaning end portions are designed to fit on a finger (figure 1) (claim 1).

Blaustein teaches a toothbrush comprising a handle with an oblong shape when viewed from the bottom (figures 2 and 3 show the dimensions of the handle) (claim 16). Also Blaustein's handle comprises a middle portion that is smaller in diameter than the top and bottom of the handle.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the kit of Fischer with the universal handle cleaning tips and cleaning end portions as taught by Carr and Borland. It is known in the art that kits can be used to contain all the necessary elements for certain applications. Fischer teaches using a kit comprising many different tools for cleaning teeth however fails to teach the exact tools as claimed. It would have been obvious to one of skill in the art to interchange the tools in Fischer's kit for the tools of Boland and Carr so that all the proper tools for cleaning teeth are located in a kit.

Additionally, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shape of the universal handle of Boland since making the middle portion of the handle have a smaller diameter will provide more support for the user's thumb and forefinger to make using the toothbrush easier and more comfortable (col. 4, lines 33-38). Also modifying the shape of the handle so that it is oblong or elliptical or oval is obvious since changing the size of a handle is a modification that has been considered to be within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237,

Claims 1-6, 12, 16, 28, 31-32, 34-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer (USPN 6905335) in view of Robertelli (USPN 3987549) in view of Carr (USPN 5765252) and further in view of Blaustein et al. (USPN 6836917).

Fischer teaches a tooth cleaning kit comprising a universal handle and various sized cleaning tips for attaching to the handle. Fischer's kit however fails to include a cleaning device as with cleaning tips as claimed and also fails to include cleaning end portions as claimed. Additionally, Fischer fails to teach a handle with a decreased diameter between the ends.

Robertelli teaches a tooth cleaning device comprising a universal handle (12) and a plurality of cleaning tips (figure 2-7) (claim 1). The cleaning tips progress in size from smaller to larger (figure 4 shows the smallest, while figure 5 is the largest) and at least one of the tip have a surface features includes a groove (figure 3) (claim 2). One of the cleaning tips has a multi-directional protrusion and brush-like shapes (figure 5 shows bristle protrusions and the brush-like shapes) (claim 3). The cleaning tips are characterized by a 360 degree radially outward omni-directional cleaning surface shape (the cleaning tips all have cleaning surfaces that extend 360 from the center) (claim 4). The cleaning tips are tapered in shape toward the top end when viewed from the front and or side (figures 5-6) (claim 6 and 12). The cleaning tips can be non-round shapes (col. 3, lines 10-13) (claim 28). The plurality of cleaning tips are secured onto the universal handle and a toothbrush is formed. The toothbrush has bristles having a 360 degree shape, with an outer bristles shape that is at least partially non-round when viewed from the top end of the toothbrush (col. 3, lines 10-13) (claim 31). The plurality of cleaning tips are secured onto the universal handle and a toothbrush is formed. The toothbrush has bristles having a 360 degree shape, with an outer bristles shape that is at least partially tapered when viewed from the front of the toothbrush (figure 2) (claim 32). The plurality of cleaning tips are secured onto the universal handle and a toothbrush is formed. The toothbrush has bristles having omni-directional bristles, which rotate around the longitudinal axis of the universal handle at a variable speed (switch 16 control the speed) (claim 34). The toothbrush changed speed in response to rotational acceleration caused by the user (switch 16 controls the speed) (claim 35).

With regards to the limitation in claim 5 regarding the cleaning tips, Robertelli teaches all the essential elements of the claimed invention however fails to teach that the cleaning tips have

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a generally oval or elliptical or oblong shape when viewed from the top end of the cleaning tips. At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use a cleaning tip with an oblong shaped cleaning tip because Applicant has not disclosed that an oblong cleaning tip provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with a round or circular tip as taught by Robertelli or the claimed oblong shape because both shapes perform the same function of cleaning teeth equally well. Therefore, it would have been obvious to one of ordinary skill in the art to modify Robertelli to obtain the invention as specified in claim 5.

Carr teaches a tooth cleaning device having various shaped cleaning end portions (claim 1). The cleaning end portions progress in size from smaller to larger (figure 1-5 are for an adult while figure 7 is for a child and figure 8 is the largest cleaning device being used on an entire hand) (claim 2). The cleaning end portion in figure 8 has a generally oblong shaped when viewed from the top end of the end portion since the length is longer than the width (claim 5). The end portions have a tapered shaped when view from the front (all the figures show that the device tapered from the sides to the top) (claim 6). The cleaning end portions has a non-round shape (figure 8) (claim 28). The cleaning end portions are designed to fit on a finger (figure 1) (claim 1).

Blaustein teaches a toothbrush comprising a handle with an oblong shape when viewed from the bottom (figures 2 and 3 show the dimensions of the handle) (claim 16). Also Blaustein's handle comprises a middle portion that is smaller in diameter than the top and bottom of the handle.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the kit of Fischer with the universal handle cleaning tips and cleaning end portions as taught by Carr and Robertelli. It is known in the art that kits can be used to contain all the necessary elements for certain applications. Fischer teaches using a kit comprising many different tools for cleaning teeth however fails to teach the exact tools as claimed. It would have been obvious to one of skill in the art to interchange the tools in Fischer's kit for the tools of Robertelli and Carr so that all the proper tools for cleaning teeth are located in a kit.

Additionally, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shape of the universal handle of Robertelli since making the middle portion of the handle have a smaller diameter will provide more support for the user's thumb and forefinger to make using the toothbrush easier and more comfortable (col. 4, lines 33-38). Also modifying the shape of the handle so that it is oblong or elliptical or oval is obvious since changing the size of a handle is a modification that has been considered to be within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237.

Claims 7-10 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer, Boland, Carr and Blaustein as applied to claim 1 above and further in view of Diamant (USPN 4406032) or Fischer, Robertelli, Carr and Blaustein as applied to claim 1 above and further in view of Diamant (USPN 4406032).

Fischer, Boland or Robertelli, Carr and Blaustein teach all the essential elements of the claimed invention. Boland and Robertelli teach that the cleaning tips have a generally planar surface (Boland, figure 8A, top and bottom horizontal surface of 80; Robertelli, figure 3 shows the planar surface being located at end of 34 opposite 28) (claim 8). Also the cleaning tips have

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raised ridges on a surface thereof (Boland, figure 6D; Robertelli, figure 3) (claim 9). The cleaning tips have raised bristles (Boland, flat sides bristles figure 6D; Robertelli, cylindrical shaped bristles figure 3) (claim 10). The references however fail to teach that the cleaning tips and the cleaning end portions are made from a resilient material such as foam (claim 7) and that the bristles can be arranged in a helical pattern (claim 33). Diamant teaches a toothbrush with a head made from a foam rubber (col. 3, lines 64-68). The head comprises bristles that take the form of a helical spring (col. 2, lines 62-65). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the cleaning tips of Boland or Robertelli so that they included a helical shaped cleaning tip as taught by Diamant since the helical shape will produce surface irregularities in the brush surface which will increase the brushing efficiency (col. 3, lines 56-58). Additionally, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make all the cleaning tips of Boland and Robertelli from foam as taught by Diamant, since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416. Using a foam material for the cleaning will help in producing surface irregularities in the brush surface which will increase brushing efficiency (col. 4, lines 4-9).

Claims 13 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer, Boland, Carr and Blaustein as applied to claim 1 above and further in view of Aoyama (USPN 6612770) or Fischer, Robertelli, Carr and Blaustein as applied to claim 1 above and further in view of Aoyama (USPN 6612770).

Fischer, Boland or Robertelli, Carr and Blaustein teach all the essential elements of the claimed invention however fail to teach that the cleaning tip has an air hole in the end (claim 13) and that the handle has an air passage therein, wherein the diameter of the air hole in the cleaning tip is substantially the same diameter as the air passage in the handle. Aoyama teaches a toothbrush comprising a handle with an air passage (8) and cleaning tips (2a-2c) with air holes (9) that correspond to the diameter of the air passage. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Boland and Robertelli with an air passageway in the handle and in the cleaning tips as taught by Aoyama so that air can flow between the handle and the cleaning tips to flush away or blow off leavings present around the roots of the bristles, facilitating the cleaning of the toothbrush (col. 4, lines 55-69). While Aoyama does not teach using the air passageway as a means for breathing through, it is clearly capable of performing this function. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Claims 21-22 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer, Boland, Carr and Blaustein as applied to claim 1 above and further in view of Trenz et al. (USPN 6745427) or Fischer, Robertelli, Carr and Blaustein as applied to claim 1 above and further in view of Trenz et al. (USPN 6745427).

Fischer, Boland or Robertelli, Carr and Blaustein teach all the essential elements of the claimed invention however fail to teach that the cleaning tips are secured onto the universal handle by means of a securing mechanism that can be unlocked with a cam mechanism by

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pushing a rod from the bottom of the universal handle (claim 21). Additionally the references fail to teach that there is a button on the outer surface thereof which allows the rod to be pushed axially by a user and the button has sufficient elastic force to return the rod and the securing mechanism to a locked position (claim 22). The references also fail to teach that that cleaning tips are inserted and removed from the handle at an angle relative to the longitudinal center axis of the handle (claim 27). Boland and Robertelli teach that the cleaning tips are secured to the universal handle by means of snap fitting. When removing the tips the user has to grab the cleaning tips and pull with force when removing them. The cleaning tips of Boland and Robertelli are inserted and removed from the handle at an angle relative to the longitudinal axis of the handle. For Boland the angle of insertion and removal is 90 degrees (figure 2) and for Robertelli the angle is 180 degrees (figure 1). Trenz teaches a cleaning device with a handle (5) and a brush element (1). The brush is attached to the handle by means of a securing mechanism (figure 3). The securing mechanism can be unlocked with a cam mechanism by pushing a rod (4a) from the bottom of the handle. There is a button (4) located on the outer surface of the handle, which has sufficient elastic force (12) to return the locking mechanism to a locked position. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Boland and Robertelli universal handle with a securing mechanism and cam mechanism as taught by Trenz for holding and releasing the cleaning tips so that the cleaning tips do not need to be touched by a user when removing. The cam mechanism would eliminate the necessity of touching the cleaning tips by hand (col. 1, lines 45-46). This in turn would prevent the spreading of bacteria from the used cleaning tip to the users hand when removing.

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Claims 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer, Boland, Carr and Blaustein as applied to claim 1 above and further in view of Tortorice (USPN 6000410) or Fischer, Robertelli, Carr and Blaustein as applied to claim 1 above and further in view of Tortorice (USPN 6000410).

Fischer, Boland or Robertelli, Carr and Blaustein teach all the essential elements of the claimed invention however fail to teach that the handle is filled with a fluid that changes appearance during rigorous agitation. Tortorice teaches a toothbrush with a handle that comprises a fluid enclosed within. There are small objects which float within the fluid and when the handle is agitated the objects move around within the fluid solution changing the appearance of the handle. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the handle of Boland or Robertelli with a decorative handle such as the one taught by Tortorice for ornamental purposes. Changing the aesthetic (ornamental) design of an object is a modification that has been considered to within the level of ordinary skill in the art. *In re Seid*, 73 USPQ 431, 433.

Claims 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer, Boland, Carr and Blaustein as applied to claim 1 above and further in view of Tortorice (USPN 6000410) and Silberman (USPN 2004/0161289) or Fischer, Robertelli, Carr and Blaustein as applied to claim 1 above and further in view of Tortorice (USPN 6000410) and Silberman (USPN 2004/0161289).

Fischer, Boland or Robertelli, Carr and Blaustein teach all the essential elements of the claimed invention however fail to teach that the handle is filled with two or more non-emulsifying fluids of different colors and densities which mix together during agitation and

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separate again when agitation stops. Tortorice teaches a toothbrush with a handle that comprises a fluid enclosed within. There are small objects which float within the fluid and when the handle is agitated the objects move around within the fluid solution changing the appearance of the handle. Silberman teaches a decorative device comprising a colored water-oil mixture ([0018]). When the device is agitated the water and oil mix and then separate when agitation stops. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the handle of Boland or Robertelli with a decorative handle such as the one taught by Tortorice filled a colored water-oil mixture as taught by Silberman for ornamental purposes. Changing the aesthetic (ornamental) design of an object is a modification that has been considered to within the level of ordinary skill in the art. *In re Seid*, 73 USPQ 431, 433.

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer, Boland, Carr and Blaustein as applied to claim 29 above and further in view of Drulias et al. (USPN 5392482) or Fischer, Robertelli, Carr and Blaustein as applied to claim 1 above and further in view of Drulias et al. (USPN 5392482).

Fischer, Boland or Robertelli, Carr and Blaustein teach all the essential elements of the claimed invention. Carr teaches that the cleaning devices comprises a cleaning member (64) molded to a flexible sleeve (60), wherein the flexible sleeve has an integrated finger loop (68) which is placed on a users finger. Carr however fails to teach that the cleaning member is made from a foam material. Drulias teaches a finger brush comprising a brush pad made from a foam material (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the cleaning member of Carr from a foam material as taught by Drulias, since it has been held within the general skill of a worker in the art to select a known

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material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416.

Claims 36 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer, Robertelli, Carr and Blaustein as applied to claim 34 above and further in view of Boland et al. (USPN 6253404).

Fischer, Robertelli, Carr and Blaustein teach all the essential elements of the claimed invention however fail to teach that the toothbrush is power to rotate the head of the toothbrush a number of degrees and then counter rotate the head a lesser number of degrees. Boland teaches a toothbrush with a brush head that rotates as well as oscillates. The brush head can be modified to do either motions (col. 8, lines 5-13). While Robertelli only teaches a rotating head, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the head so that it oscillates also. Allowing the head to oscillate as well as rotate increases the cleaning capabilities of the brush head. Additionally, one of skill in the art would by routine experimentation find the optimum number of degrees the head would need to rotate in both directions (clockwise and counterclockwise) to achieve the best possible cleaning.

Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer, Robertelli, Carr, Blaustein and Boland as applied to claim 36 above.

Fischer, Robertelli, Carr, Blaustein and Boland teach all the essential elements of the claimed invention however fail to teach that the handle has a graphic or grip pattern characterized by two or more circular, elliptical or oblong shapes of various sizes connected by substantially straight lines. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the handle of Robertelli with a decorative handle such as

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the one claimed for ornamental purposes. Changing the aesthetic (ornamental) design of an object is a modification that has been considered to within the level of ordinary skill in the art.

In re Seid, 73 USPQ 431, 433. Additionally, it would have been obvious to a person of ordinary skill in the art to use a handle with shapes connected by straight lines because Applicant has not disclosed that the ornamental design provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the gripping means as taught by Robertelli or the claimed ornamental handle because both handles perform the same function of preventing the handle from slipping for a users hand equally well. Therefore, it would have been obvious to one of ordinary skill in the art to modify Robertelli to obtain the invention as specified in claim 37.

Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer, Boland, Carr and Blaustein as applied to claim 21 above and further in view of Yamada (USPN 5706545) or Fischer, Robertelli, Carr and Blaustein as applied to claim 21 above and further in view of Yamada (USPN 5706545).

Fischer, Boland or Robertelli, Carr and Blaustein teach all the essential elements of the claimed invention however fail to teach that the handle comprises a first half portion and a second half portion which are snapped together to form a universal handle. Each of halves has a male protruding ridge on one side and a female receiving slot on the other side, which engage as the halves are snapped together. Yamada teaches a toothbrush comprising a handle with two halves (14a, 14b). The halves each have male protruding ridges (not shown, col. 3, lines 55-60) and female receiving slots (44). The male ridges snap into the female slots causing the two

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halves to connect together. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the handles of Boland or Robertelli with the handle halves that snap together as taught by Yamada since having the handle being separate pieces allows the mechanical elements within the handle to be accessible and therefore fixable necessary. It would save money and production costs, if a user could replace only a broken part rather than they whole toothbrush. Additionally, using snap fitting elements would allow for easy access without any tools.

Claims 39-40, 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer, Boland, Carr, Drulias and Blaustein.

Fischer teaches a tooth cleaning kit comprising a portable case carrying a universal handle and various sized cleaning tips for attaching to the handle (claim 39). Fischer's case includes a structural support comprising a foam insert shaped to receive various components of the kit (claim 44). Fischer's kit however fails to include a cleaning device as with cleaning tips as claimed and also fails to include cleaning end portions as claimed. Additionally, Fischer fails to teach a handle with a decreased diameter between the ends.

Boland teaches a tooth cleaning device comprising a universal handle (11) and a plurality of cleaning tips (figures 5-6 and 8-9) (claim 39). The cleaning tips progress in size from smaller to larger (figure 8-9 show the smallest and figures 5-6 show the larger). The smaller tips (figure 8A) could be used for children ages one to two since they are the smallest (claim 39). There are cleaning tips for older children (figure 5A, 6A) (claim 39). The cleaning tips with grooves in figure 5A could be used for children ages two to three (claim 42) and the cleaning tips with bristles (64) in figure 6A could be used for children ages three to four (claim 43). The age the

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children are when they use the cleaning tips is intended use and holds no patentable weight. The cleaning tips could be used on any age child or adult for that matter. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Carr teaches a cleaning device comprising cleaning end portions. The cleaning device comprises a cleaning member (64) molded to a flexible sleeve (60), wherein the flexible sleeve has an integrated finger loop (68), which is placed on a users finger (claim 39). This cleaning device could be used to clean infant's teeth and gums (claim 40). Carr however fails to teach that the cleaning member is made from a foam material. Drulias teaches a finger brush comprising a brush pad made from a foam material (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the cleaning member of Carr from a foam material as taught by Drulias, since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416.

Blaustein teaches a toothbrush comprising a handle with an oblong shape when viewed from the bottom (figures 2 and 3 show the dimensions of the handle). Also Blaustein's handle comprises a middle portion that is smaller in diameter than the top and bottom of the handle.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the kit of Fischer with the universal handle cleaning tips and cleaning end portions as taught by Borland and Carr in view of Drulias. It is known in the art that kits can be used to contain all the necessary elements for certain applications. Fischer teaches using a kit

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comprising many different tools for cleaning teeth however fails to teach the exact tools as claimed. It would have been obvious to one of skill in the art to interchange the tools in Fischer's kit for the tools of Boland and Carr in view of Drulias so that all the proper tools for cleaning teeth are located in a kit.

Additionally, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shape of the universal handle of Boland since making the middle portion of the handle have a smaller diameter will provide more support for the user's thumb and forefinger to make using the toothbrush easier and more comfortable (col. 4, lines 33-38). Also modifying the shape of the handle so that it is oblong or elliptical or oval is obvious since changing the size of a handle is a modification that has been considered to be within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237,

Claims 39-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer, Robertelli, Carr, Drulias and Blaustein.

Fischer teaches a tooth cleaning kit comprising a portable case carrying a universal handle and various sized cleaning tips for attaching to the handle (claim 39). Fischer's case includes a structural support comprising a foam insert shaped to receive various components of the kit (claim 44). Fischer's kit however fails to include a cleaning device as with cleaning tips as claimed and also fails to include cleaning end portions as claimed. Additionally, Fischer fails to teach a handle with a decreased diameter between the ends.

Robertelli teaches a tooth cleaning device comprising a universal handle (12) and a plurality of cleaning tips (figures 2-7) (claim 39). The cleaning tips progress in size from smaller to larger (figure 4 shows the smallest and figures 5 shows the largest). The smaller tips (figure

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4) could be used for children ages one to two since they are the smallest and have a smooth surface (claim 39 and 41). There are cleaning tips for older children (2, 3, 5, 7) (claim 39). The cleaning tips in figure 3 could be used for children ages two to three and have a plurality of grooves (claim 42) and the cleaning tips with bristles in figure 5 could be used for children ages three to four (claim 43). The age the children are when they use the cleaning tips is intended use and holds no patentable weight. The cleaning tips could be used on any age child or adult for that matter. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Carr teaches a cleaning device comprising cleaning end portions. The cleaning device comprises a cleaning member (64) molded to a flexible sleeve (60), wherein the flexible sleeve has an integrated finger loop (68), which is placed on a users finger (claim 39). This cleaning device could be used to clean infant's teeth and gums (claim 40). Carr however fails to teach that the cleaning member is made from a foam material. Drulias teaches a finger brush comprising a brush pad made from a foam material (abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the cleaning member of Carr from a foam material as taught by Drulias, since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. *In re Leshin*, 125 USPQ 416.

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Blaustein teaches a toothbrush comprising a handle with an oblong shape when viewed from the bottom (figures 2 and 3 show the dimensions of the handle). Also Blaustein's handle comprises a middle portion that is smaller in diameter than the top and bottom of the handle.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the kit of Fischer with the universal handle cleaning tips and cleaning end portions as taught by Robertelli and Carr in view of Drulias. It is known in the art that kits can be used to contain all the necessary elements for certain applications. Fischer teaches using a kit comprising many different tools for cleaning teeth however fails to teach the exact tools as claimed. It would have been obvious to one of skill in the art to interchange the tools in Fischer's kit for the tools of Robertelli and Carr in view of Drulias so that all the proper tools for cleaning teeth are located in a kit.

Additionally, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the shape of the universal handle of Robertelli since making the middle portion of the handle have a smaller diameter will provide more support for the user's thumb and forefinger to make using the toothbrush easier and more comfortable (col. 4, lines 33-38). Also modifying the shape of the handle so that it is oblong or elliptical or oval is obvious since changing the size of a handle is a modification that has been considered to be within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237,

Claims 45-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fischer, Boland, Carr, Drulias and Blaustein as applied to claim 44 above and further in view of Hammond (PGPub 20020008047) or Fischer, Robertelli, Carr, Drulias and

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Blaustein as applied to claim 44 above and further in view of Hammond (PGPub 20020008047).

Fischer, Boland or Robertelli, Carr, Drulias and Blaustein teach all the essential elements of the claimed invention. While the kit of Fischer comprises toothpaste (34a, 34b) (claim 46), the kit fails to further include a CD with instructions and a laminated instruction card for directions as to how to use the kit. Hammond teaches a kit for implementing first aid. The kit comprises an instruction video (48) and instruction card (44). While the kit of Hammond is not a kit for cleaning, it still related art, since it includes an instruction video and card in the kit to teach the user how to use the device in the kit. It would have been obvious to one of ordinary skill in the art to include an instructional video and card in the kit of Fischer so that the user knows how to use all the cleaning tips and cleaning end portions properly. Additionally, even though Hammond teaches an instruction tape (as shown in the drawings), it would have been obvious to modify the video to a compact disk since it is known in the art that they are equivalent structures that can be used interchangeably.

Response to Arguments

Applicant's arguments with respect to claims 1-10, 12-13, 16, 21-28, 30-46 have been considered but are moot in view of the new ground(s) of rejection.

The applicant amended the claims to include the limitation that the handle having a middle and ends, with the middle having a smaller diameter than the ends.

New rejections were made in view of Blaustein, who teaches having a toothbrush handle with a middle portion having a smaller diameter than the ends.

The applicant also amended the claims to include the limitations that the handle is sized for use by a child and that the brush heads are sized for children aged 1-4 years old.

These limitations regarding use by a child are considered to be intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Since a child is clearly capable of holding the handle of Boland or Robertelli and the cleaning tips are clearly capable of being used in a child's mouth, then the claim limitations are met by the above references. The claim provides no structural difference between a handle or cleaning tips of an adult's toothbrush and the handle or cleaning tips of a child's toothbrush. Therefore, these limitations are considered intended use and hold no patentable weight.

The applicant also argues that Fischer is configured for use by a dental hygienist and not intended for self-use. Again, this is an intended use limitation and as long as the device has all the structural elements and is capable of being used for self cleaning, then it meets the claimed limitations.

The applicant argues Diamant teaches a tip that is not replaceable since it is fixed. The Examiner agrees with this, however, the reference was used solely to show a foam, helical shaped tip and the combination of the other references with Diamant reads on the claim limitation. It would have been obvious to make one of the removable tips of Boland or Robertelli foam and helical as taught by Diamant for reasons as stated above.

The applicant further argues that Drulias only teaches a collar made from foam and not the cleaning surfaces. The Examiner would like to point out that the collar can be considered a

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cleaning surface. Figure 7 shows the brush pad (42) or collar forming a cleaning surface. The brush pad can be made from a foam material (abstract). Thus Drulias teaches a cleaning surface made from foam and it would have been obvious to modify the cleaning surface of Boland or Robertelli so that they are made foam in view of Drulias.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shay L. Karls whose telephone number is 571-272-1268. The examiner can normally be reached on 7:00-4:30 M-Th, alternating F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on 571-272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Patent Examiner
Art Unit 1744



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